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1 UNITED STATES DISTRICT COURT
2 EASTERN DISTRICT OF NEW YORK
3
4 ROBERT A. FALISE; LOUIS)KLEIN, JR.; FRANK MACCIAROLA;)
5 and CHRISTIAN E. MARKEY, JR.,)As Trustees,)
6) Plaintiffs,) Case No.
7) 99 CV 7392 (JBW) vs.
) Related to:
8) 97 CV 7640 (JBW)THE AMERICAN TOBACCO
COMPANY;)
9 RJ REYNOLDS TOBACCO COMPANY;)B.A.T. INDUSTRIES, PLC;)
10 BROWN & WILLIAMSON TOBACCO)CORPORATION; PHILIP MORRIS)
11 INCORPORATED; LIGGETT, INC.;)and LORILLARD TOBACCO)
12 COMPANY,))
13 Defendants.)----------)
14
15
16 CONTINUED DEPOSITION OF FREDERICK C. DUNBAR, PH.D.
17 New York, New York
18 Wednesday, June 7, 2000
19
20
21
22 Reported by:
23 ANDREA L. KINGSLEY, RPRCSR NO. 001055
24 Job No. 108896
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2
3
4 June 7, 2000
5 10:18 a.m.
6
7 Continued deposition of FREDERICK C.
8 DUNBAR, PH.D., held at the offices of Orrick
9 Herrington & Sutcliffe, LLP, 666 Fifth
10 Avenue, New York, New York, pursuant to
11 adjournment, before Andrea L. Kingsley, a
12 Notary Public of the State of New York.
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1 A P P E A R A N C E S:
2 ORRICK HERRINGTON & SUTCLIFFE, LLP,
3 Attorneys for Plaintiffs
4 666 Fifth Avenue
5 New York, New York 10103-0001
6 BY: JAMES L. STENGEL, ESQ.
7
8 KIRKLAND & ELLIS

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9 Attorneys for Defendant Brown & Williamson
10 Tobacco Corporation
11 200 East Randolph Street
12 Chicago, Illinois 60601
13 BY: ELLI LEIBENSTEIN, ESQ.
14
15 ALSO PRESENT:
16 MARCELO RIVERA, Videographer
17
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1 F R E D E R I C K C. D U N B A R, Ph.D.,
2 resumed as a witness, having been previously
3 sworn by the Notary Public, was examined and
4 testified further as follows:
5 EXAMINATION BY (Cont'd.)
6 MR. STENGEL:
7 Q. Good morning, Dr. Dunbar. If you could
8 retrieve what we marked as Dunbar 1 which is your
9 expert report in this matter. I would refer you to
10 page 69 of the report.
11 A. Yes.
12 Q. Mid page, your report reads "Despite the
13 medical audit results, the Court noted that the
14 Trust's original purpose was to pay claimants
15 quickly and inexpensively with the knowledge that
16 such a streamlined approach would result in payment
17 to undeserving claimants. Accordingly, it required
18 the Trust to abandon its audit program and pay the
19 claims."
20 Is that your understanding of the
21 resolution of the so-called medical audit or Adams
22 litigation?
23 A. Basically it actually ended in a
24 stipulation and settlement, but from the
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1 transcripts that I have read, on the final hearing
2 date the attorneys for the Trust said based on the
3 judge's prior comments that this is the
4 accommodation that both sides had reached.
5 Q. If you could turn to page 74. We talked
6 about this briefly yesterday. I don't believe we
7 availed ourselves of the backup material. If you
8 could, 74 is basically a recap of how you went
9 about calculating the reduction in damages that you
10 allege is necessary because of claims relating to
11 what are called "high volume doctors" here. And
12 whether you can do it in some detail by memory or
13 whether you need to make reference to Dunbar 2 or
14 3, please to so. But I just need to know exactly
15 how you derived the estimates of your proposed
16 reductions in payment.
17 A. It's best to start with Exhibit 4 which
18 computes the -- tells us what the values are.
19 Q. Doctor, you are looking at Dunbar 2?

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20 A. Exhibit 4 is in the backup. It's
21 probably most convenient to look at that.
22 MR. LEIBENSTEIN: I assume you are
23 referring to Exhibit 4 to the report?
24 THE WITNESS: Correct.
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1 Q. You are using bogus as a term of art
2 here?
3 A. Where do you see that?
4 Q. My Exhibit 4 says "Estimated Past
5 Overpayment Due to Bogus Asbestosis Claims."
6 A. It should have been taken out. That
7 refers to the documents in the case wherein the
8 correspondence between Pat Houser and the
9 plaintiffs' attorneys, both sides said they were
10 looking for Dr. Bogus. This is not to say that
11 these are necessarily bogus asbestos claims, it's
12 just somebody -- the programmer put that in this
13 heading. I don't think it survived in the exhibit
14 to the final report.
15 Q. You edited that out of the heading?
16 A. I did. I didn't edit it out of the
17 backup apparently.
18 And the text of the report, I think it
19 says unfounded claims, other noncompensable claims.
20 Not Manville only claims.
21 This, the formula for the damages is
22 basically the equation that is represented in the
23 backup of tab B to page 75. There you will see
24 that there's a factor that is labeled UC which is
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1 the discount for unfounded claims. And that the
2 approach is to use the data from Exhibit 4 to
3 compute those percentages.
4 Q. So the term which is on the formula in
5 parenthesis, 1 minus UC, is a percentage you derive
6 from the data on exhibit 4?
7 A. Yes. Now the derivation of the
8 percentage proceeds over two different time
9 periods. One corresponds to the common law time
10 period beginning January 1st, 1992 and the other
11 corresponds to the RICO time period of November 11,
12 1995. We found from the database the number of
13 asbestosis claims attributable to these doctors,
14 what their percent of each asbestos claim was and
15 then what the average settlement was for each
16 doctor. We then used the audit results to -- I
17 will pause --
18 Q. I'm sorry, doctor.
19 A. Sure. We then used the audit results to
20 take the full liquidated values that were
21 represented by those settlements and determine what
22 they would have been had the claims been adjusted
23 according to the audit results. So if there's
24 unchanged diagnosis, for example, then that
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1 particular claim is unchanged. If it's downgraded
2 to either a category 2 or category 1 claim, then we
3 take the difference between those values. And if
4 it's downgraded to no claim or noncompensable claim

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5 in the eyes of the audit, then we subtract that out
6 altogether. We then get full liquidated value
7 overpayment using that calculation. And then that
8 overpayment is going to be a percent of the total
9 claims over that time period. But it's basically
10 you just use that overpayment to adjust the
11 damages.
12 Now for the future we took the
13 percentage of asbestosis claims over -- it's over
14 the common law time period that were represented by
15 the overpayments and used those to forecast out
16 into the future what the overpayments would be.
17 Q. So you anticipated that the percentage
18 would be 58.48 percent going to the future?
19 A. Only on their claims --
20 Q. That's only asbestos claims?
21 A. First of all, that's the percent of
22 their asbestosis claims. I think it's 27.2 percent
23 is the number if you look on the next page.
24 Q. There is a document which has the
page 170
page 171
1 heading "Table 4, Post '94 High Volume Doctors"
2 which is the last page physically before tab B.
3 A. 75?
4 Q. Actually, 74.
5 A. Yes.
6 Q. Is this a NERA generated document?
7 A. No. This is actually an attachment to a
8 letter by Mark Lederer to Elihu Inselbuch who is
9 the representative of the SCV.
10 Q. If you look at the letter you will see
11 as to certain of the doctors there are substantial
12 swings and percentage between the post and pre '94
13 period. What did you do to recognize that fact,
14 that Dr. Harron, for example, has 31.8 percent of
15 post '94 claims and only 8 percent of pre '95
16 claims?
17 MR. LEIBENSTEIN: Objection.
18 A. The percent of claims in that letter
19 were not used by us. In other words, we just took
20 the percent of claims from January 1, '92 through
21 12/31 as we computed. We didn't take their
22 computation.
23 Q. And you didn't attempt to look at this
24 issue before 1992?
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page 172
1 A. Correct.
2 Q. So the end result of this analysis is
3 you fill in the term 1 minus UC with a percentage?
4 A. Yes.
5 Q. And that's part of the formula which is
6 then used to produce the adjustment; correct?
7 A. Correct.
8 Q. In terms of the audit results, how did
9 you account for the possibility that if a medical
10 audit a claim had been downgraded the claimant
11 might resubmit information or submit additional
12 information to recover his or her position in terms
13 of categorization?
14 A. We didn't take that into account. I
15 mean, there's ways in which this is a conservative

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16 estimate and probably ways in which they could have
17 tried to prove up their claim better but I think
18 it's pretty clear there are more unfounded claims
19 than just from these doctors and there are fairly
20 unfounded claims in other disease categories.
21 Q. Let's turn to the subject of smoking
22 discounts. Which will take us to page 79 of
23 Exhibit 1.
24 MR. LEIBENSTEIN: Off the record.
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1 (Discussion off the record.)
2 Q. Calling your attention to page 79, am I
3 correct that what's described here is your effort
4 to address the alleged smoking discount in the
5 pre-C period?
6 A. In this section?
7 Q. Yes.
8 A. I believe so, yes.
9 Q. Just so I understand what's been done
10 here, you make reference to coding by
11 Dr. Rabinovitz of the amount of the shared
12 causation field and then you make reference to your
13 analysis, by that I am presuming NERA's analysis of
14 the claim files. Did you have two separate data
15 sources for this analysis?
16 A. Let me just read this paragraph.
17 Yes. You want me to elaborate?
18 Q. Yes, please.
19 A. Our analysis was a coding that was done
20 by NERA, I think I mentioned that yesterday, Lucy
21 Allen oversaw that effort. The data from
22 Dr. Rabinovitz was on a disk that was turned over
23 to us.
24 Q. For pre-C claims, I am referring to the
page 173
page 174
1 NERA coding exercise, what raw data source was used
2 to code the, I guess what you are actually coding
3 would be the shared causation entries?
4 A. Yes.
5 Q. You extract that from hard copy files?
6 A. Image copy and hard copy, both, yes.
7 Q. What documents were you actually looking
8 at?
9 A. The claim files themselves.
10 Q. What documents within the claim files
11 were you looking to extract that information?
12 A. Anything -- well, in terms of the
13 smoking discount, that would tend to be on the CAS
14 form, either the case analysis summary or the claim
15 analysis summary. With regard to smoking
16 information, the presence of smoking, that sort of
17 thing, we would go through all the documents in the
18 file.
19 Q. What is your understanding of the
20 overall sample size for pre-C claims?
21 A. Where there's a CAS?
22 Q. No, overall.
23 MR. LEIBENSTEIN: Objection. Vague.
24 A. I guess -- I don't know what you mean
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1 by -- which sampler are you talking about?
2 Q. Let's back up and take this in steps.
3 Your analysis of claim files was restricted to the
4 claim files that were part of Dr. Rabinovitz'
5 sample; correct?
6 A. Okay, Dr. Rabinovitz' sample is not in a
7 unique thing. There's the large sample which is
8 the 7000 that were drawn. There's then the
9 ultimate sample of or a subset of that which was
10 turned over. That's the 4000. So are you talking
11 of the 4000?
12 Q. Let's talk of the 4000. Do you know how
13 many had -- let's talk about Dr. Rabinovitz' coding
14 first -- information as to shared causation?
15 A. Well --
16 MR. LEIBENSTEIN: Are we switching time
17 periods now?
18 MR. STENGEL: No, we are talking
19 pre-C.
20 A. I think the sum of -- I don't know
21 what pre-C was per se but I think my recollection
22 is the sum of pre-C and post-C is that it's
23 somewhat in excess of 700.
24 Q. With shared causation information?
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page 176
1 A. Yes.
2 Q. I may be able to cut through this
3 because I may have been confused. We have a -- I
4 will show you the document.
5 MR. STENGEL: Let's mark this as Dunbar
6 6.
7 (Dunbar Exhibit 6, document, marked
8 for identification, as of this date.)
9 Q. My question first, for now I am talking
10 about both pre- and post-C because that's how this
11 document seems to be constructed, is this the
12 universe of claim files with shared causation data
13 of the pre- and post-C sample population?
14 A. It's not quite. It's the universe that
15 we found from a disk that was sent to us where
16 Dr. Rabinovitz had coded up the data.
17 Q. So in your -- so I understand this --
18 looking at the second page, column F, which I am
19 reading as shared value; is that correct?
20 A. Yes.
21 Q. That data was extracted from the disk
22 you received from HR&A?
23 A. Yes. That's my understanding.
24 Q. But to your understanding this was not
page 176
page 177
1 the result of a data input process by NERA?
2 A. My understanding is that none of these
3 fields represent input data from NERA. I was told
4 this was basically good coding of the shared
5 causation.
6 Q. Dr. Dunbar, at page 79 you appear to be
7 contrasting the NERA analysis with the claim files
8 with what can be calculated from Dr. Rabinovitz'
9 own coding and you don't read that as suggesting
10 there was a NERA data coding exercise?
11 MR. LEIBENSTEIN: Objection to the

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12 extent it mischaracterizes the testimony.
13 A. No, there was a NERA data coding
14 exercise that is represented in I guess the third
15 full sentence but then the fifth full sentence
16 refers only to Dr. Rabinovitz' coding.
17 Q. Where is the NERA coding exercise
18 reflected? What pieces of paper do we have that
19 would tell us what NERA did by way of data entry?
20 A. You should have all the backup data for
21 the calculation of our percentages. That should be
22 in SAS files, in SAS programs that we turned over.
23 Q. We received from you collections of CAS
24 forms. There were 591 divided into three
page 177
page 178
1 categories.
2 A. Okay.
3 Q. Did someone at NERA sit down and extract
4 data from those files?
5 MR. LEIBENSTEIN: Objection. Vague.
6 Ambiguous. Mischaracterizes the testimony.
7 A. Let me see if I can explain this. We
8 extracted data or attempted to extract data from
9 all the 4000 files that we had related to
10 Dr. Rabinovitz' sample. The 591 forms that we sent
11 you is not the universe of forms from which we
12 extracted data. That's the universe of forms that
13 we pulled in order to determine what the shared
14 causation field represented. Was it smoking, was
15 it other factors, that sort of thing. On some of
16 those forms there's some handwritten notation by
17 NERA. So given that we thought we should turn all
18 of those over because there would be something on
19 there that a NERA person might have written. And
20 there's some that there's probably nothing on the
21 NERA person wrote. That's the purpose of those
22 forms. The number of forms which were coded up is
23 greater than that number but it's basically the
24 forms you sent us that we took the data off of.
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page 179
1 Q. I guess what I am trying to understand
2 is if you look at Dunbar 6, this represents -- the
3 last physical page of this document are some
4 formulas, that's clearly by NERA; correct?
5 A. Yes. That's an Excel spreadsheet form.
6 Q. This appears to list in order 719
7 claims.
8 A. Yes, it does. Actually it's 718 because
9 the 1 begins with the title.
10 Q. So we have a population reflected on
11 Dunbar 6 of 718 claims and would the 591 CAS forms
12 correspond to claims which are listed here?
13 A. We never checked that. This I believe
14 was originally a STATA file that was turned over to
15 us. I think we may have read it into Excel and
16 then made a computation here using Excel
17 spreadsheet commands. I don't think there was any
18 attempt to match up her claim numbers to our claim
19 numbers of which I am aware.
20 Q. If we drop down to the last sentence of
21 the first paragraph on page 79, you conclude for
22 lung cancer claimants, now we are back in the pre-C

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23 world, 95 percent of the smokers with calculation
24 detail had an explicit smoking discount. My
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1 question is what percentage of the smokers with
2 lung cancer -- that's 95 percent of what?
3 A. 95 percent of the forms for which there
4 was a settlement amount that was built up from the
5 fields on the CAS form.
6 Q. Is it your position that the 95 percent
7 is of the 90 percent reference in the preceding
8 sentence?
9 MR. LEIBENSTEIN: Objection. Vague.
10 Form. Do you mean is it a subset?
11 MR. STENGEL: That's what I am trying
12 to get at.
13 Q. We started talking about the sample
14 and this seems to refer to a subset of the overall
15 sample which is smoking, smokers rather.
16 A. No, it's the subset of -- the way I read
17 that is that the first -- we have got two sentences
18 here, one begins with overall 90 percent and the
19 other begins with lung cancer claimants. The way I
20 read it is the subset from the second sentence, the
21 lung cancer agreements, whereas the first sentence
22 refers to also those with asbestosis and pleural
23 condition.
24 Q. But calculation detail in the last
page 180
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1 sentence is the same as a discount subtracted from
2 the gross settlement value in the shared causation
3 line in the preceding sentence?
4 A. That's my understanding.
5 Q. How did you go about calculating the
6 smoking discount using this data?
7 MR. LEIBENSTEIN: Vague. What do you
8 mean by this?
9 MR. STENGEL: I was actually looking
10 at the Rabinovitz data that we looked at,
11 Dunbar 6, but I guess I should ask it as
12 both his work with the Rabinovitz data and
13 what NERA did with its own data. Then you
14 would object as compound. So let's start
15 with the Rabinovitz.
16 A. If you take a look at the last page,
17 you can see that there's an average function there.
18 The average is taken over the two periods and the
19 three diseases.
20 Q. You know what a CAS form looks like;
21 correct, Doctor?
22 A. Yes.
23 Q. Maybe it makes sense just to mark an
24 example so we are all on the same page. This I
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1 don't have -- I only have two copies of this I
2 believe. So what I am going to mark as Dunbar 7 --
3 (Dunbar Exhibit 7, one of three pages of
4 a CAS form, marked for identification, as of
5 this date.)
6 MR. STENGEL: Counsel, unfortunately I
7 don't have copies. You may have to look on

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8 with the witness.
9 MR. LEIBENSTEIN: Objection to the
10 extent you are representing that what we
11 have marked as Exhibit 7 is a complete CAS
12 form.
13 Q. That's a fair point. This is one of
14 three pages of a CAS form?
15 A. It varied over time. The earlier forms
16 had fewer pages and I think it expanded.
17 Q. My question -- you have had a chance to
18 review Dunbar 7, Doctor?
19 A. Yes.
20 Q. Let's start with the Rabinovitz data.
21 You used for your calculation the lines, "Gross
22 settlement value all def. compared to shared
23 causation (e.g. smoking.)" At least it's your
24 understanding that those two numbers were compared
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1 to get the percentage of shared causation?
2 A. Yes.
3 Q. Is that the way NERA did it as well?
4 A. Yes.
5 Q. Is there an Excel spreadsheet with the
6 NERA data presented in a similar fashion to the
7 Rabinovitz data?
8 A. It's a SAS file.
9 Q. When you, I mean NERA, extracted data
10 from these parts of the CAS forms, did you attempt
11 to capture all the data on the page?
12 A. I don't know the answer to that
13 question.
14 Q. Because you don't understand the
15 question or because you didn't do the data
16 extraction?
17 A. The latter. I wasn't involved
18 explicitly in the coding.
19 Q. Going back to Dunbar 6, Doctor, I take
20 it someone at NERA actually chose which data items
21 off of the HR&A disk to put on this Excel
22 spreadsheet?
23 A. By that do you mean that there's more on
24 this data file than there is here?
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1 Q. Yes.
2 A. I don't know the answer to that.
3 Q. You just don't know whether this is in
4 the form it arrived from HR&A or whether someone
5 from NERA made a selection from other variables?
6 MR. LEIBENSTEIN: Objection. You can
7 answer.
8 A. I know this is in an Excel spreadsheet
9 rather than a STATA file. What I don't know is if
10 it includes all the fields or not.
11 Q. Looking first at the NERA subset of
12 pre-C claims, that is the subset that was coded
13 with shared causation information, the presence or
14 absence of data on shared causation is not randomly
15 distributed; is it?
16 MR. LEIBENSTEIN: Objection. Vague.
17 A. Well, I guess I have to have a
18 reference point. If you mean that there were

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19 certain forms that because of the way they were
20 negotiated they didn't have shared causation, you
21 could figure that out ahead of time, versus other
22 forms because of the way they were negotiated they
23 did have shared causation, I would agree with you
24 on that.
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page 185
1 Q. These forms -- I'm sorry, Doctor, I am
2 referring to Dunbar 7 which is the sheet out of the
3 CAS form. These forms don't tell you what a claim
4 was actually liquidated for; correct?
5 MR. LEIBENSTEIN: Objection.
6 A. Actually, sometimes they do.
7 Q. But it's not -- there is a line item for
8 final Manville settlement that's not always present
9 on the form?
10 MR. LEIBENSTEIN: Objection. Vague.
11 When you say it's not always present I am
12 not sure if you are referring to the line
13 final Manville settlement or the actual
14 value.
15 Q. No one has entered data in that line.
16 I believe the typewritten line is almost always on
17 the form.
18 A. It is true that sometimes the final
19 settlement is not on the forms, that's correct.
20 Q. Did you do any comparison of the gross
21 settlement value net of shared causation value to
22 the actual liquidated values of these claims?
23 MR. LEIBENSTEIN: Objection. Vague.
24 A. Just repeat that again.
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page 186
1 Q. Let me see if I can make it clear.
2 My understanding of what was done to
3 calculate the percent shared causation as to both
4 the Rabinovitz and NERA analysis was to compare the
5 gross settlement value and the shared causation
6 value. If you look at Dunbar 7 there are other
7 deductions which are subtracted to get to a net
8 recommended Trust settlement and then that may or
9 may not bear any relationship to the actual
10 liquidation of the claim. What I am trying to
11 understand is I see that you have this percentage
12 calculated based on the gross settlement value as
13 against the shared causation discount, but I
14 haven't seen an analysis that compares any number
15 to the actual liquidated value of these claims.
16 MR. LEIBENSTEIN: Objection.
17 A. I would agree with you that I don't
18 think we have turned over anything on that issue.
19 As I mentioned yesterday, we did look at the
20 relationship between settlement value and smoking.
21 Q. But that was not produced to us?
22 A. It was not produced in the first round
23 of production, no. You have some stuff on that
24 now.
page 186
page 187
1 Q. Looking at Dunbar 7, you extracted a
2 shared causation value from the shared causation
3 e.g. smoking line; is that correct?

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4 A. Yes.
5 Q. Did you assume that any time there was a
6 number on that line it was the equivalent of a
7 smoking discount?
8 MR. LEIBENSTEIN: Objection to the form.
9 A. No.
10 Q. How did you eliminate those instances
11 where you did not believe it was a smoking
12 discount?
13 A. There would be a notation off to the
14 side as to what the shared causation was.
15 Q. If you look back at Dunbar 6, and Dunbar
16 6 is what you used to calculate the percentages you
17 attribute to Dr. Rabinovitz on page 79?
18 A. That's right.
19 Q. Since if as you believe this is output
20 from coding performed by Dr. Rabinovitz at HR&A,
21 since this doesn't purport to do anything but code
22 gross settlement value and shared value, how would
23 you eliminate those instances where the shared
24 value was not smoking related?
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page 188
1 MR. LEIBENSTEIN: Objection to the form.
2 A. One thing you could do is try to match
3 the ones we eliminated which I don't think was
4 done. But the -- in the course of our reading
5 through the forms, we found only one instance when
6 there was a notation that shared causation was due
7 to anything other than smoking.
8 Q. So out of the 518 forms that you
9 actually have --
10 MR. LEIBENSTEIN: I think you are
11 confusing two numbers. 718 is the
12 Rabinovitz number --
13 MR. STENGEL: 591.
14 Q. But we were only able to match 549
15 forms?
16 A. From the CAS forms we turned over versus
17 the POC numbers on the Rabinovitz file.
18 Q. Correct?
19 A. That could be -- in other words, two
20 things could have happened. One is the Rabinovitz
21 file may also include numbers -- may include POCs
22 from a sample that was done from both the 4000 and
23 the remainder of the 7000. Secondly, some of our
24 sample, since we were using also a paper copy, we
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1 could have found other forms, other documentation
2 of a smoking discount that wasn't on the files that
3 Rabinovitz coded up. In other words, I think there
4 are circumstances where we found information that
5 wasn't in the Rabinovitz coding.
6 Q. Just so we are clear on this, I think I
7 understood your answer, your understanding and, in
8 fairness, you used what could have happened, I take
9 it that's what happens because you didn't actually
10 do the coding and data extraction?
11 A. Well, no, I wasn't at Dr. Rabinovitz'
12 office when she did her's so I clearly didn't do
13 that. But I am telling you the reasons why it
14 doesn't surprise me that we don't have -- our forms

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15 are not a perfect subset of what's on the
16 Rabinovitz disk.
17 Q. But to get back to my earlier question.
18 Your understanding as you sit here today, at least
19 as to the 591 CAS forms coded by NERA, was that
20 there was only one of those forms that had any
21 indication that joint causation was other than
22 smoking?
23 A. Correct. Wait a minute, give me the
24 number you said --
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1 Q. I believe 591 is what we understand the
2 NERA set and, to be clear, that's both pre-C and
3 post-C as we have used that terminology?
4 A. That's pre-C and post-C, correct, yes.
5 Right. That's smoking claimants from forms that
6 were turned over to us that had information in
7 the -- on how the settlement -- how the recommended
8 settlement was computed.
9 Q. Do you have an opinion as to whether the
10 4000 and some HR&A sample was randomly selected?
11 A. I think it was stratified actually.
12 Q. That's correct.
13 A. Other than what I have read, no.
14 Could I get back to that question? That
15 is an interesting issue now that I think about it.
16 I don't have an opinion about the 7000 which I
17 believe were stratified random sample. I haven't
18 thought about the 4000 however. It very well could
19 be the case that the sample of 4000 which was
20 turned over to us is not a random sample because of
21 whatever the selection procedures were.
22 Q. In Dunbar 7 you reach conclusions which
23 are presented on the first page -- I'm sorry,
24 Dunbar 6.
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1 A. Yes.
2 Q. The percentages shown both as to pre-C
3 and post-C claims are averages of averages;
4 correct? Averages of percentages?
5 A. Yes.
6 Q. And they are in no way a weighted
7 average?
8 A. That's correct, as I read this.
9 Q. For the 591 claims analyzed by NERA, was
10 your computation methodology the same? That is,
11 you calculated a shared causation percentage for
12 each claim by comparing the gross settlement value
13 with the shared value and then you did an average
14 of those percentages?
15 MR. LEIBENSTEIN: Asked and answered.
16 A. I just want to correct one
17 supposition. I think the actual number of claims
18 that we used for computing the average was greater
19 than the 591. The 591 was used to look at the
20 issue of whether the shared causation field was a
21 smoking discount. We used a larger number of
22 claims to compute the percentage discount that was
23 attributable to shared causation.
24 Q. Do you recall what the size of the
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larger group was?
A. I think it's about 685 plus or minus.
Q. As to that 685, NERA looked at 591 CAS forms, or at least parts of 591 CAS forms and as to the claims above 591 to get to 685 was there an examination of CAS forms?
A. Yes.
MR. LEIBENSTEIN: Were you finished with your question?
MR. STENGEL: Yes.
MR. LEIBENSTEIN: Objection. Mischaracterizes the testimony. You can answer.
Q. Counsel maybe objected because the examination was a part of the CAS forms; correct?
A. I can't --
MR. LEIBENSTEIN: The witness doesn't know why I objected.
A. First of all, in terms of whether the coders looked at the entire CAS form for this, I can't answer that. Because I wasn't part of the coding process. With regard to the issue of shared causation, we certainly reviewed all the forms on that and we found information, 591, the remaining
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are considered to be zeros from the standpoint of the computation of the average.
Q. Did you produce the sheets from the CAS forms to us only if NERA made some notation on the form?
MR. LEIBENSTEIN: Objection. Characterizes the testimony.
A. I don't think that's correct. I think we pulled the 591 for closer examination and we just turned all of those over regardless of whether there was a NERA notation. I think that was easier to do than just --
Q. I was just trying to make sure I was clear.
In looking at Dunbar 6, are you confident that this is HR&A data as opposed to NERA data?
A. Yes.
Q. Have you done any analysis to compare the average shared causation percentages that you calculated with the actual liquidated values of these claims?
MR. LEIBENSTEIN: Objection.
A. No. I think the analysis that we did
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had a zero 1 indicator value for smoking versus non-smoking rather than a shared value -- shared causation number.
Q. What I am trying to understand, Doctor, and you can look at Dunbar 7 just to -- I am going to ask you to consider a hypothetical rather than consider the numbers on this page. To make it simple, if the gross settlement value on one of these parts of a form was 600,000, the shared causation line was 300,000, so under your analysis

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11 that would give a 50 percent shared causation
12 percentage?
13 A. That's right.
14 Q. But if you looked to the bottom of the
15 form and whether because of a non-Manville discount
16 or other reasons the recommended Trust settlement
17 was shown as $100,000 and if you inquired to
18 determine the claim was actually settled for
19 $300,000, a substantial increment over the
20 recommended Trust settlement value, what relevance
21 does the aspirational percentage shared causation
22 discount have?
23 MR. LEIBENSTEIN: Objection. Are you
24 talking hypothetically again?
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1 MR. STENGEL: It was explicitly
2 hypothetical, yes.
3 MR. LEIBENSTEIN: The second part
4 wasn't.
5 A. It still has the same proportionate
6 value, the discount is still proportionately the
7 same but the Manville share has changed.
8 Q. So you are assuming that to the extent
9 there is actually settlements, actual liquidated
10 values are higher than the recommended Trust
11 settlement, that that is because of a failure to
12 obtain the non-Manville discount and the shared
13 causation discount is sacrosanct?
14 MR. LEIBENSTEIN: Objection.
15 A. If you had read as much of the
16 documents as I have read I don't think you will
17 find a single case where anybody has said that the
18 reason that a claim settled for more than the
19 recommended amount was because the shared causation
20 discount that was on the recommended amount was too
21 high. Almost all the time it focuses on Manville
22 share and some of the times it focuses on other
23 issues such as how the case will play at trial in
24 terms of how well the witnesses will appeal to the
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1 jury. I have never seen anything that mentions
2 shared causation as a reason why a case has settled
3 for more than the recommended amount. Given that,
4 the shared causation percentage would just be the
5 same.
6 Q. Have you done any kind of statistical or
7 mathematical comparison of the net recommended
8 Trust values on the -- from the CAS forms as
9 against actual liquidated values?
10 A. No. I read documents on those issues
11 but I have not done any analysis.
12 Q. And similarly, these forms contain a
13 line for non-Manville discount. Do you see that on
14 Dunbar 7?
15 A. Yes.
16 Q. Have you extracted the data on those
17 lines to see whether it corresponds with your
18 notions of what shared discounts Manville was able
19 to get?
20 A. I am actually not sure whether that data
21 was coded up because, again, I wasn't part of the

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22 coding process, but the way we calculate Manville
23 share is the way everybody calculates Manville
24 share which is taking the actual settlement percent
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1 of the total.
2 Q. But you've never -- my question was
3 really very narrow. You've never used the
4 non-Manville discount on these portions of the CAS
5 forms to mathematically or statistically
6 investigate the non-Manville discount that was
7 sought by the Trust?
8 A. Well, I guess -- I am not sure that
9 question can be answered as phrased. The
10 non-Manville discount is just part of what is going
11 to be negotiated. To the extent that the claim
12 settles for something other than the recommended
13 amount and the non-Manville discount was used to
14 achieve the recommended amount, then the
15 non-Manville discount is whatever the claim
16 actually settled for. It's not what is on that
17 line.
18 Q. So you would not look to the
19 non-Manville discount on this page or these similar
20 pages to calculate the discount for Manville share?
21 MR. LEIBENSTEIN: Objection. During
22 which period are we?
23 MR. STENGEL: Both pre-C and post-C.
24 If the witness has a different view in those
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1 periods I guess he can tell me.
2 A. If you are saying that the -- well, I
3 guess -- we don't change the non-Manville discount
4 as a percent. That percent stays the same
5 regardless of what the settlement value is. So if
6 the claim settles for more than the recommended
7 amount, that non-Manville discount is the same
8 percentage so there wouldn't be -- I don't see how
9 you could say that percentage changes. Unless I am
10 missing something.
11 Q. I think you are making this more
12 complicated than I am probably capable of making it
13 which is just simply -- you could do a percentage
14 of non-Manville discount versus gross settlement
15 value for each one of these claims for which you
16 have CAS data; correct? You can do the same sort
17 of percentage you have done in Dunbar 6?
18 A. Non-Manville discount as a percent of
19 the gross settlement?
20 Q. Correct.
21 A. Yes, you could do that.
22 Q. And you haven't done that?
23 MR. LEIBENSTEIN: Objection.
24 A. No.
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page 199
1 Q. You don't think that would be a valid
2 way to derive the non-Manville discount?
3 MR. LEIBENSTEIN: Objection. During
4 which time period?
5 Q. Let's start with the pre-C.
6 A. I think it would be a fine way to derive

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7 the non-Manville discount as a percent of gross
8 settlement value. I can go with that.
9 Q. And what about post-C?
10 A. Same thing post-C.
11 Q. But you didn't do that?
12 MR. LEIBENSTEIN: Objection.
13 A. No. I don't see what it related to,
14 actually.
15 Q. As we sit here today looking at Dunbar 7
16 which relates to claim 1291509, you don't know what
17 the actual liquidated value of this claim was; do
18 you?
19 A. I can find out for you. I mean, we have
20 it.
21 Q. But you don't know as you sit here
22 today?
23 A. It's not on this sheet.
24 Q. And you didn't participate in any of the
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1 negotiations of this claim?
2 A. Certainly.
3 Q. So you don't know what discussions took
4 place between the Trust and presumably the
5 claimant's counsel to lead to a settlement, if
6 there was one?
7 MR. LEIBENSTEIN: Objection.
8 A. Well, that may or may not be true. I
9 don't know whether this claim is part of some other
10 file where I have read the discussions. But I read
11 a lot of discussions about claim settlement.
12 MR. LEIBENSTEIN: Are we at a breaking
13 point?
14 MR. STENGEL: Sure.
15 THE VIDEOGRAPHER: The time is 11:24
16 p.m. We are going off the record.
17 (Recess taken.)
18 THE VIDEOGRAPHER: The time is 11:44
19 a.m. and we are back on the record.
20 BY MR. STENGEL:
21 Q. Dr. Dunbar, if you could look at page 81
22 of your report and there's a paragraph that starts,
23 "In the course of preparing this report," it makes
24 reference to an effort on the part of you and your
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1 staff. Just a couple questions. You make
2 reference to reviewing thousands of CAS forms. Are
3 those thousands of CAS forms in your reliance
4 material?
5 A. You mean the material we turned over?
6 Q. Yes.
7 A. No. We only turned over 591. The
8 ones -- the forms we looked at are the forms we got
9 from you.
10 Q. But you don't have segregated these
11 thousands of CAS forms that you and your staff
12 looked at other than the ones you turned over to
13 us?
14 A. I would say we looked through all the
15 ones that were given to us in the coding exercise,
16 so to the extent they are segregated they are
17 segregated into two components: All the ones you

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18 gave us and the 591 we gave back.
19 Q. You make reference to you and staff
20 reviewing many of the trust documents. To the
21 extent you reviewed documents which you feel relate
22 to the subject of smoking discount, did you include
23 those on your list of reliance documents?
24 A. Yes.
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page 202
1 Q. When you and your staff were reviewing
2 these documents, did you take notes, write memos to
3 one another?
4 A. No memos. My modus operandi is to read
5 a document and if I don't have my computer handy I
6 will print the page or put a Post-it on it and I
7 will type it into the computer on an ongoing basis
8 and it's usually not notes, it's just a quote that
9 I will type in and then the quotes become part of
10 the text or not as the case may be.
11 I think I gave you an example in my
12 notes of how I do that. The notes I turned over
13 yesterday have something that says additional back
14 up on it and that's actually things I have read
15 since the report went in. That's the extent of
16 what I now have.
17 MR. LEIBENSTEIN: I want to make one
18 point. Counsel talked about reliance
19 documents, that's sort of a term of art.
20 Actually what was turned over is the listed
21 materials that were considered and reliance
22 materials, if there is such a thing, would
23 be a subset of the materials considered.
24 MR. STENGEL: So what's here in the 21
page 202
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1 boxes is materials considered, not reliance
2 materials?
3 MR. LEIBENSTEIN: I wouldn't say not
4 reliance materials, it's a larger --
5 MR. STENGEL: It's a larger group.
6 MR. LEIBENSTEIN: Yes.
7 MR. STENGEL: The reliance materials
8 are presumably in there subset of a larger.
9 MR. LEIBENSTEIN: They might or might
10 not be. You have to ask the witness if
11 there is anything he considered but didn't
12 specifically rely on.
13 MR. STENGEL: It would be a long
14 afternoon.
15 MR. LEIBENSTEIN: That's part of the
16 problem. The rules require a list of things
17 considered as opposed to a list of reliance
18 materials. So according to the rules we
19 produced a list of things considered, not
20 relied upon.
21 Q. Following up on your explanation as to
22 how you extract information from documents, looking
23 at Dunbar 1, how much of the actual typing of this
24 report did you do?
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1 A. As a percentage basis?
2 Q. However you are comfortable expressing

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3 it.
4 A. Well, except for the big -- let's break
5 it out this way. Sections 1 through 5 and 7 were
6 typed by me. And then 6 was, the initial draft we
7 had a divided effort on and basically section B --
8 Q. 6B?
9 A. Let me just look at 6. I am pausing to
10 go over the subjects.
11 I wrote basically D and F and A.
12 Section B, C probably reflects about 50 percent of
13 my writing.
14 Q. Where you have multiple authors working
15 on drafts, do each of the authors have access to
16 the document on your computer system?
17 A. One at a time. Two people can't have
18 access at the same time.
19 Q. But the document is resident in your
20 system and if Dr. Dunbar wants to work on one of
21 his sections, if you are not working on it, another
22 analyst or NERA staff member can work on another
23 section?
24 A. I can work on it if somebody else is not
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page 205
1 working on it.
2 Q. Right.
3 A. Yes.
4 Q. But multiple people actually work on
5 producing the actual document we see?
6 MR. LEIBENSTEIN: Objection.
7 A. Primarily two with a little bit of
8 input from another two.
9 Q. I think you told us yesterday that the
10 process you use is not to produce successive paper
11 drafts but you overwrite on the computer?
12 A. Correct.
13 Q. Do any of the other, I guess you have
14 identified potentially three other people working
15 on the report, do they have a different practice
16 with respect to taking notes when they review
17 documents?
18 A. I don't know the answer to that.
19 Q. You haven't seen any notes of theirs
20 relating to document review or data review that
21 aren't in the materials that have been provided to
22 us?
23 A. None.
24 Q. In the pre- and post-C period was there
page 205
page 206
1 also a CAS form?
2 MR. LEIBENSTEIN: Objection.
3 A. I guess there was a CAS form in
4 concept in both time periods, yes.
5 Q. Doctor, I would like to refer you to
6 page 82 which I believe takes us into the post-C
7 period as you and I have used that phrase. We
8 struggled with this earlier but I am going to try
9 again.
10 There's a paragraph which starts, "In
11 general."
12 A. Yes.
13 Q. You make a reference to reviewing all

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14 the pre-TDP claims sampled by the Trust expert with
15 a shared causation value.
16 A. Yes.
17 Q. Then you say that 18 percent of these --
18 so that's 18 percent of the claims with a shared
19 causation value there was an explicit indication
20 that the shared causation was a smoking discount?
21 A. Right. Just to be clear, this is the
22 sample of 591.
23 Q. So this is the 591?
24 A. Correct.
page 206
page 207
1 Q. So 18 percent of the 591 had an explicit
2 indication that shared causation equals smoking
3 discount?
4 A. Right.
5 Q. The text continues, "For another 35
6 percent, we," presumably NERA, "found that the form
7 did not explicitly indicate the reasons for the
8 shared causation but did mention the claimant's
9 smoking history." So out of the 591, am I reading
10 this correctly, that 35 percent of the 591 had an
11 entry on the shared causation line but it was not
12 explicitly related to smoking but you found some
13 indication in the file that it was a smoking
14 claimant?
15 A. Yes.
16 Q. That, by my calculation, accounts for 53
17 percent of the 591; correct?
18 A. That's correct.
19 Q. How would you characterize the other 47
20 percent?
21 A. Well, except for the one claim where
22 there was explicitly something else mentioned, we
23 would characterize those as smoking discount.
24 MR. LEIBENSTEIN: I want to go back a
page 207
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1 few questions before. Where you say you
2 found some indication in the file that it
3 was a smoking discount, I think you
4 mischaracterized the report. The report
5 said that the form indicated that the shared
6 causation was a smoking discount. As
7 opposed to it just being some indication in
8 the file.
9 MR. STENGEL: Okay. I don't disagree
10 with your characterization. What's actually
11 in the text of the report.
12 Q. At page 83 you make reference to a
13 statistical demonstration that the shared causation
14 discount, the size of the shared causation discount
15 is related to claimant smoking. Do you see that?
16 A. Yes.
17 Q. That's later in the page is a reference
18 to Exhibit 6.
19 A. Yes, there is.
20 Q. Let's turn to Exhibit 6. First of all,
21 are you using smoking duration or pack years as the
22 measure for the extent to which a claim is filed?
23 A. Here we are using duration as opposed to
24 pack years. I think we did the same analysis with

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1 pack years though and came up basically with the
2 same result.
3 Q. Who made the decision to use duration as
4 opposed to pack years?
5 A. I did.
6 Q. Did you make that decision reviewing the
7 outcomes of both analyses?
8 A. Well, I had the outcome of both analyses
9 and if they were different then I probably would
10 have presented things differently but since they
11 were the same, I didn't. The decision is just
12 based on the fact that Dr. Harris uses duration and
13 I didn't feel it was worthwhile to get into debate
14 as to whether duration or pack years was the better
15 variable.
16 Q. Do you still have the results of your
17 pack year statistical analysis?
18 A. No, I'm afraid not. We could reproduce
19 them but I don't have them.
20 Q. Did you have it in hard copy at one
21 point in time?
22 A. I don't think so. I think it was just
23 done on a computer screen.
24 Q. Now there are a number of estimates or
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page 210
1 tests, I am looking at Exhibit 6, just to make it
2 clear on the record, that's Exhibit 6 to Dunbar 1.
3 What are each of these -- I realize Kendall's Tau
4 line B and Tau line C are variations on a similar
5 statistical measure but could you just walk us
6 through each of these estimators and show us what
7 they show and why you selected them?
8 A. Let me go backwards.
9 The reason I included all of them is
10 because they are the output of the StatXact program
11 and I just wanted to show that the findings were
12 the same regardless of which of the estimators you
13 use. Typically I think I would use the one in the
14 first line which is a -- do you want an explanation
15 of what the rank order correlation test is?
16 Q. Sure.
17 A. What the rank order correlation test is
18 it shows the probability that two variables are
19 independently distributed from each other. For
20 example, if we thought that there was no effect of
21 smoking duration as a number on the shared
22 causation value as a number, then we would think
23 that those two variables are independent,
24 statistically independent and the value or the
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1 correlation of that would be zero.
2 If, however, it's likely that they are
3 not independent and so if you have, let's say, two
4 CAS forms and one form has like 80 pack years and a
5 40 percent shared causation and the other form has
6 20 pack years and a 10 percent share in causation,
7 then what we see is that when the pack years is
8 greater the discount is also greater. The
9 probability of that happening if they were

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10 independent is about .5, .5 probability corresponds
11 to a zero correlation.
12 What this does is it computes all
13 possible paired comparisons of it and computes
14 basically the number of times that you end up with
15 the two pairs being in the same direction versus
16 the number of times the two pairs are in opposite
17 direction. And then when it does that --
18 MR. STENGEL: Off the record for one
19 second.
20 THE VIDEOGRAPHER: The time is 12:02
21 p.m. We are going off the record.
22 (Recess taken.)
23 THE VIDEOGRAPHER: The time is 12:05
24 p.m. We are back on the record.
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1 BY MR. STENGEL:
2 Q. Doctor, do you remember approximately
3 where you were in that response?
4 A. Could you just read back the last couple
5 of sentences?
6 (Record read.)
7 A. -- it counts up these numbers and then
8 it normalizes it so that the counts are somewhere
9 between minus 1 and plus 1. 1 being when all of
10 the pairs are in the same direction and minus 1
11 when all the pairs are in the opposite direction
12 and zero when 50 percent at a time, they are in
13 each direction. So that's how Kendall's Tau is
14 computed.
15 Then the standard error is computed --
16 if you have an exact number of times the standard
17 error is computed as the let's say 5 percent
18 confidence, you look at the 5 percent of the time
19 that the results were in the opposite direction, 5
20 percent on the downside, so it's an exact count of
21 that probability. And then the P value which is
22 the power of the statistic is because there are so
23 many possible combinations, the computer doesn't
24 have enough power to compute P value and so what it
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page 213
1 does is it samples from all of the pairs in order
2 to find out the probability.
3 That's what we are observing. That is
4 the correlation coefficient is zero or less.
5 Q. So what this measure really does is
6 designed to prove the null hypothesis?
7 A. Yes. I probably should have started
8 with that. The test of independence. The null
9 hypothesis is that the shared causation number and
10 the pack years, or duration as the case may be, are
11 independently distributed and the alternative
12 hypothesis is that they are positively correlated
13 and we reject in this case the null hypothesis.
14 Q. You made reference to StatXact. Is that
15 a software package?
16 A. It is. It is spelled S-T-A-T capital X
17 A-C-T. All one word.
18 Q. Does it automatically give you the
19 Kendall's and Somers' measures when you use the
20 program?

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21 A. Yes. It gives you everything on this.
22 I think we turned over the printout.
23 Q. So your decision was to use Kendall's
24 Tau, not so much the other measures that are also
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page 214
1 presented here?
2 A. I would tend to use Kendall's Tau
3 because it's easier to explain. It's the most
4 straightforward to demonstrate what it is. The
5 others -- the variance on the others are how the
6 counts are normalized. In other words, the same
7 principle is applied in coming up with the number
8 of times that two pairs move in the same direction
9 but there's kind of what you might -- in the
10 calculations there's different denominators that
11 are adjusted for one thing or the other, like ties
12 and that sort of thing.
13 Q. Some of the Somers' measures require you
14 have equal number of rows and columns in the data
15 set; is that correct?
16 A. That's right.
17 Q. Is that true in any of the Kendall's
18 measures?
19 A. I am actually not sure about that.
20 Q. You didn't have equal numbers of rows
21 and columns in this data set?
22 A. No, that's right.
23 Q. Just so we all understand. The measures
24 used or considered on Exhibit 6 establish a
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page 215
1 relationship, they prove the alternative hypothesis
2 about the relationship between the variables at
3 issue?
4 A. It allows us to accept the hypothesis.
5 Q. But these measures do not speak to the
6 magnitude of that relationship?
7 A. That's right.
8 Q. So you can't use this as you would a
9 coefficient?
10 A. Correct.
11 Q. And to use what will no doubt be an
12 overly simplistic example, these tests to a
13 positive simplified world, if you were comparing
14 two variables and the variables X were one cent and
15 Y were two cents, those were the distributions, you
16 had a thousand observations but they were the same,
17 you would get a very high degree of correlation?
18 A. If you pair a thousand pairs and -- if
19 you had 1000 pairs and every pair was one cent and
20 two cents, yes.
21 Q. But these measures would be identical
22 between that hypothetical or if you had 1 thousand
23 pairs of 1 billion dollars and 2 billion dollars?
24 A. Yes, that's correct.
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page 216
1 Q. Now there are other ways to examine
2 relationships; correct?
3 A. Yes.
4 Q. Did you do regression analysis with
5 these variables?

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6 A. Again, around the same time period I was
7 talking about when we were doing the SAS analysis
8 of whether smoking affected settlement values, I am
9 pretty sure we did regression analyses of probably
10 pack years on shared causation.
11 Q. Do you recall doing it with duration or
12 just with pack years?
13 A. I don't think we did duration.
14 Q. What was the result of doing it with
15 pack years?
16 A. I don't remember the parameters. But in
17 general, the association was statistically
18 significant.
19 Q. Do you recall anything about the size of
20 the coefficients?
21 A. No. Wait a minute. Okay. I also did a
22 non -- this may never have got printed out, the
23 result was read to me off the screen, we did a
24 nonparametric regression which determines the
page 216
page 217
1 median of the slope between pack years and shared
2 causation and then we computed the constant term
3 that would be a median and we computed a confidence
4 interval around the constant term just to make sure
5 that the confidence interval included zero for each
6 of the diseases and it did.
7 Q. Where are the results of that
8 nonparametric regression analysis?
9 A. That was just read to me. I wasn't in
10 the office when that happened. I asked somebody to
11 do that for me and he did and he just read the
12 results to me off the screen. I don't think it was
13 ever printed out. I never saw it printed out.
14 Q. Were the direction of the coefficients
15 consistent?
16 A. You mean the slope --
17 Q. Whether positive or negative?
18 A. The constant terms?
19 Q. Yes.
20 A. The constant -- my recollection is that
21 some of the constant terms were zero. I don't know
22 if there were any negative ones. There might have
23 been a positive one.
24 Q. But you don't present the results of
page 217
page 218
1 that nonparametric regression analysis anywhere in
2 your report?
3 A. No. I never printed it out.
4 Q. Apart from this nonparametric regression
5 analysis, did you ever do any other form of
6 regression analysis?
7 MR. LEIBENSTEIN: Objection.
8 Mischaracterizes testimony.
9 A. Other than what I mentioned before?
10 Q. I am talking about the relationship
11 between smoking duration and shared causation.
12 A. I think I mentioned that I did a
13 multiple regression -- well, it would have been a
14 binary regression analysis back in December time
15 frame. December/January time frame.
16 Q. That related to settlement values not

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17 the shares causation measures and smoking duration.
18 I am looking at what else you did with these
19 variables.
20 A. No, I actually think we did a regression
21 analysis, a binary regression of shared causation
22 and pack years. We weren't using duration until
23 Dr. Harris' report came out. But again, that would
24 have been done in the SAS framework and none of
page 218
page 219
1 that was saved.
2 Q. That would have been done in April?
3 A. No, I said December, January. It was
4 well before any of Dr. Harris' reports.
5 Q. You have done no regression analysis.
6 Was the nonparametric regression analysis done more
7 recently?
8 A. Yes.
9 Q. When was that done?
10 A. That would have been very recently,
11 within the last month or so.
12 Q. Since the submission of your report?
13 A. We -- yes actually.
14 Q. So between the SAS analysis which was
15 done probably late last year and the submission of
16 your report, you did no other regression -- you did
17 no regression analysis with respect to smoking
18 discount?
19 MR. LEIBENSTEIN: Objection. Are you
20 now switching to smoking discount as
21 compared to --
22 MR. STENGEL: I am trying to speed
23 this along. We can do these in detail but I
24 think that would fairly capture both the
page 219
page 220
1 shared causation and some of the values in
2 the smoke settlement values in smoking
3 practices.
4 MR. LEIBENSTEIN: I think we might
5 need to do this in detail.
6 A. Let me just recap. I think there were
7 three separate analyses and I think you have got
8 them all. There was a mobile regression analysis
9 done where we had an indicator variable for smoking
10 and the dependent variable was settlement values;
11 there was a binary regression analysis where the
12 independent variable was pack years and the
13 dependent variable was the shared causation
14 discount; and then there was the nonparametric
15 regression which had the same independent and
16 dependent variables and, just to be complete, in
17 the first regression I mentioned, there were a host
18 of other dependent variables besides the indicator
19 variable for whether or not the claimant smoked.
20 Oh, wait a minute. Then there's the -- that's it
21 with regard to regression analysis.
22 Q. None of those regression analyses were
23 saved?
24 A. Correct. That's correct.
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page 221
1 Q. Turning back to the analysis reflected

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2 on Exhibit 6, did you ever do a T test to assess
3 relationship between smoking duration and shared
4 causation?
5 A. Well, that would be a normal output from
6 a binary regression printout.
7 Q. But apart from that, if it were normally
8 part of the printout, you didn't set out to do just
9 that test?
10 A. No.
11 Q. Are you familiar with a Nova?
12 A. Yes.
13 Q. Did you do a Nova analysis of smoking
14 duration, shared causation?
15 A. Again, SAS prints out an analysis of
16 variance printout when you do a regression, so
17 other than what came with the SAS printout, I
18 didn't do anything other than that.
19 Q. The smoking duration/shared causation
20 are not what would be deemed ordinal value
21 variables; are they?
22 A. Correct.
23 Q. Do you have any intention to conduct a
24 regression analysis to measure the relationship
page 221
page 222
1 between smoking duration and settlement values?
2 A. No, I actually never thought of doing
3 that.
4 Q. Do you have any intention to do a
5 regression analysis of pack years versus settlement
6 values?
7 A. I would have to give you the same
8 response to that.
9 Q. You have never thought about it?
10 A. Right. It just has never occurred to me
11 to do that.
12 MR. STENGEL: Off the record.
13 THE VIDEOGRAPHER: The time is 12:22
14 p.m. We are going off the record.
15 (Time noted: 12:22 p.m.)
16
17
18
19
20
21
22
23
24
page 222
page 223
1 A F T E R N O O N S E S S I O N
2 (Time noted: 1:31 p.m.)
3
4 F R E D E R I C K C. D U N B A R, Ph.D.,
5 resumed and testified as follows:
6 EXAMINATION (Cont'd.)
7 BY MR. STENGEL:
8 THE VIDEOGRAPHER: The time is 1:31 p.m.
9 and this is tape number 5 of the videotaped
10 deposition of Mr. Frederick C. Dunbar,
11 Ph.D.
12 Q. Before we broke we were focused on

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13 Exhibit 6 to Dunbar 1 and your analysis of the
14 relationship between smoking duration and shared
15 causation. Taking a different tack, Dr. Dunbar,
16 would it be reasonable to calculate the smoking
17 discount as the difference between the liquidated
18 value between smokers and non-smokers assuming
19 similar disease claims?
20 A. Well, I think you have to control for a
21 lot more variables than that in order to be able to
22 compute a smoking discount. Whether it's possible
23 as a practical matter, given my knowledge of the
24 database, I think that would be less accurate than
page 223
page 224
1 doing it the way we have done it.
2 Q. Is that in your view because of a
3 limitation of sample size?
4 MR. LEIBENSTEIN: Objection.
5 Mischaracterizes the testimony.
6 A. Certainly some of the diseases and pay
7 periods there is a limitation on sample size.
8 There may be a problem of missing variables too
9 that would create some problems.
10 Q. But there are accepted techniques for
11 statisticians to account, to use a lay term, fill
12 in missing variables; correct?
13 MR. LEIBENSTEIN: Objection to the
14 extent you are relating this back to the
15 original question or earlier question.
16 A. I think there's generally -- let me
17 put it this way: There are sometimes techniques
18 for filling in missing observations of a variable.
19 To fill in a missing variable is a more difficult
20 task and whether you say that there were accepted
21 techniques for doing that I think is open to
22 question.
23 Q. Dr. Dunbar, you are aware that the
24 defendants had the right to ask the Trust to
page 224
page 225
1 produce a different random sample for your use; are
2 you not?
3 MR. LEIBENSTEIN: What period of time
4 are you talking about?
5 Q. During the pendency of this case.
6 A. I am actually not aware of that.
7 Q. Had you known that the defendants could
8 have asked the Trust to generate a different or
9 larger random sample, is that something that you
10 might have asked them to do?
11 MR. LEIBENSTEIN: Objection.
12 A. Well, in general, more data is better
13 than less data but sometimes less data is enough
14 and it's costly to get more data. Whether it would
15 have been better to have a larger sample at some
16 point depends upon what you know about your
17 analysis at that time. So I would say that if you
18 are talking about late summer, early fall last
19 year, we probably would not have asked for more
20 data because we didn't know at that point what, if
21 any, limitations there would be on the analysis
22 posed by the sample size. There comes a time when
23 a small sample size does pose some limitations but

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24 at that point it was later in the game and, as I
page 225
page 226
1 said before, I didn't know about the possibility of
2 expanding the sample size.
3 Q. What I would like for you to turn your
4 attention to now, Doctor, is page 89 of Dunbar 1
5 which is your presentation regarding propensity to
6 sue.
7 A. Yes.
8 Q. Did you perform a statistical or
9 econometric analysis projecting the future
10 propensity to sue under the circumstances described
11 by Dr. Harris as the counter factual scenario?
12 MR. LEIBENSTEIN: Objection. Compound.
13 A. Well, I did not perform an independent
14 statistical analysis but information on which I
15 rely is the result of statistical analyses done by
16 other people.
17 Q. What other people are you referring to?
18 A. Well, in the first instance,
19 Dr. Florence, and then in the second instance, the
20 various studies that were referenced by Krizer in
21 his article.
22 MR. STENGEL: Off the record.
23 THE VIDEOGRAPHER: The time is 1:38
24 a.m. We are going off the record.
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page 227
1 (Recess taken.)
2 THE VIDEOGRAPHER: The time is 1:45
3 p.m. and we are back on the record.
4 BY MR. STENGEL:
5 Q. Before we broke, Dr. Dunbar, I think you
6 were telling me you had relied on statistical
7 analysis in the form of what Dr. Florence has done
8 in this case and in, I believe this is correct, the
9 studies which -- not that Dr. Krizer did but which
10 underlied his work; is that correct?
11 A. Yes. Professor Krizer.
12 Q. What studies do you refer to as being
13 part of Professor Krizer's work?
14 A. Well, it has several studies where there
15 are surveys both in the United States and in
16 England having to do with what is -- what could be
17 called the propensity to sue or he calls it the
18 propensity to claim. In those studies individuals
19 who make a claim are classified -- are individuals
20 who have had an accident or an injury are
21 classified according to whether they believe that
22 the injury was solely due to somebody else, where
23 the injury was partially due to somebody else,
24 whether it was due to other causes, whether they
page 227
page 228
1 themselves are at fault. Various classifications.
2 And then the studies measure the percentage of
3 people who make a claim within each of these
4 categories.
5 By and large, the number of the studies
6 show that people who tend to blame a second party
7 for the accident or the injury have about four to
8 five times, let's say, the propensity to claim than

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9 those who believe that the accident was more due to
10 other causes.
11 Q. So what Dr. Krizer found was that to the
12 extent the potential claimant could lay blame, they
13 were more likely to file a claim?
14 A. Yes. Or not could but would lay blame.
15 Q. Would the blame have to be on the part
16 of the person or entity they were claiming against?
17 A. In some surveys that's not so clear but
18 in other surveys it's a little bit more clear
19 because there's a category which is called other
20 which allows them to make that distinction. And
21 other studies there's a category that kind of
22 implies other -- I just can't remember -- I blocked
23 what it is now. But there's a number of different
24 studies and the questions they ask can vary a
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page 229
1 little bit from study to study. Some of the
2 studies you can infer some third effect or
3 third-party besides laying blame solely on the
4 claimant or the defendant.
5 Q. In the context of this case, I am not
6 addressing Dr. Harris' presumptions at this point,
7 just where we are today, if the asbestos-exposed
8 population of smokers has been paying attention and
9 they are aware that tobacco companies have agreed
10 to pay hundreds of billions of dollars in
11 settlements, they have lost trials, punitive
12 damages have been imposed, would you expect that
13 that would lead to a decline in claiming against
14 the Manville trust?
15 MR. LEIBENSTEIN: Objection. Incomplete
16 hypothetical.
17 A. I don't have a response to that that I
18 would give off the cuff. I just haven't thought
19 about that particular issue.
20 Q. There's nothing in the Krizer literature
21 which to your mind provides an easy answer to that
22 question?
23 A. There may be an easy answer to it but I
24 just don't have access to it at this point.
page 229
page 230
1 Q. Did Professor Krizer in any part of his
2 survey work on individuals who were asbestos
3 exposed?
4 A. That's not clear. There are
5 occupational injury surveys that may or may not
6 involve asbestos.
7 Q. But none of his work was explicitly as
8 identified as punitive victims of a mass tort?
9 A. Well, let's put it this way, I don't
10 think that a sample was drawn solely from the
11 victims to the mass tort. The way the samples were
12 drawn they definitely could have come from some of
13 the respondents -- definitely could have come from
14 the mass tort.
15 Q. But you don't know that as you sit here
16 today?
17 A. I don't know what I just said?
18 Q. You don't know --
19 A. I do know what I have said is right.

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20 Q. That they could have?
21 A. That they could have, yes.
22 Q. When experts sit down to attempt to
23 estimate the number and value of future tort claims
24 in a mass tort setting, they typically make
page 230
page 231
1 assumptions about propensity to claim; correct?
2 A. You can't answer that question yes/no.
3 It really depends on the technique that's used.
4 There's some techniques that can bypass the need to
5 estimate a propensity to sue.
6 Q. Which techniques would those be?
7 A. Well, one of them is in the National
8 Gypsum article, related article we talked about
9 yesterday. It's the one where we do a regression
10 analysis of claimants against the CCR as a function
11 of, among other things, the exposed population. So
12 your coefficient, your algebraic equation that
13 comes out of that puts together both the propensity
14 to sue and the dose response relationship doesn't
15 separate the two.
16 Q. But the model at least implicitly does
17 capture the propensity to sue of that population?
18 MR. LEIBENSTEIN: Objection.
19 A. It is implicit, yes.
20 Q. Other than Dr. Florence's work and the
21 studies cited by Professor Krizer, is there any
22 other data you rely on in your assessment of the
23 propensity to claim under the Harris counter
24 factual scenario?
page 231
page 232
1 MR. LEIBENSTEIN: Objection.
2 Mischaracterizes the testimony.
3 A. Well, in terms of the findings of
4 Dr. Florence, that the propensity to sue for lung
5 cancer claimants is lower than the propensity to
6 sue for mesothelioma claimants, that finding
7 corresponds to results I have seen in other
8 analyses, including analyses that we have done.
9 Q. Leaving aside the issue of propensity to
10 sue and Harris' counter factual scenario, do you
11 intend at trial to offer any opinions relating to
12 the quality of Dr. Florence's estimate of future
13 claims?
14 A. No. Actually, let me amplify that a
15 little bit. I think one of the factors that we
16 cite in order to support the notion that there are
17 unfounded claims is that Dr. Harris' prior
18 estimates in --
19 MR. LEIBENSTEIN: Florence.
20 A. Sorry. Dr. Florence's prior estimates
21 for the Trust turned out to reasonably correctly
22 project malignancies but under forecasted
23 non-malignancies and that forecasting error can be
24 explained by the increase in the unfounded claims.
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page 233
1 Moreover, that explanation has been given by the
2 trust staff itself.
3 Q. But that's not an expressed criticism of
4 Dr. Florence?

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5 A. I am not criticizing Dr. Florence, no.
6 Q. Turning back to the propensity measure,
7 and if you need to look at supporting materials in
8 Dunbar 2 or 3 feel free, at page 92 of your report
9 you derive two dollar amount estimates of your
10 reduction predicated on a change in the assumed
11 propensity to claim. Could you explain to me how
12 you get to those dollar amounts?
13 A. You're on page 92?
14 Q. 92.
15 A. Let me pause to take a look at this.
16 Okay, let's go to -- come back from tab
17 A, 1, 2, 3 pages. I have a table that's entitled
18 "Calculation of Discount in Harris Model Alleged
19 Damages for Failure to Take Account of Propensity
20 to Sue." What this shows is that if in the actual
21 world there were say 100 claims that were lung
22 cancer, that means that there were then -- I
23 believe it's up here -- 476 total lung cancer
24 claims that would generate those 100 claims. Based
page 233
page 234
1 on the propensity to sue that Dr. Florence
2 estimated. What we do is we take the asbestos
3 share of actual risk which we compute from
4 Dr. Harris' model and we say that at that share
5 which is 11.3 percent we have Dr. Florence's
6 estimate of propensity to sue which is 21 percent.
7 We then say that if there was zero asbestos
8 share -- I'm sorry, if there was zero asbestos
9 share of actual risk, there would be a zero percent
10 propensity to sue and if there were 100 percent
11 asbestos share of actual risk then the propensity
12 to sue would equal whatever the propensity to sue
13 for mesothelioma is.
14 So if you compute what the asbestos
15 share of risk is in the counter factual world,
16 that's 23.6 percent, and if you -- you can
17 interpolate then between zero/zero on the one hand,
18 that is to say zero asbestos share of risk and zero
19 claim rate, up to 100 percent asbestos share and
20 mesothelioma claim rate which we have normalized
21 equals 1 here as does Dr. Florence then you would
22 get 32 percent. If you extrapolate from the
23 current 21 percent of claim rate at 11.3 percent to
24 the 23.6 percent asbestos share risk then you get
page 234
page 235
1 43.9 percent propensity to sue.
2 So we take the mid point of those two
3 estimates on the basis you can't tell a priori
4 which is the better of those two approaches and
5 that gives us 37.9 percent as the propensity to sue
6 in the counter factual world. And it's on that
7 basis then we find out what the new number of
8 claims is. After adjusting for the decline in
9 disease that would be estimated with Dr. Florence's
10 probability matrix.
11 Q. You are still starting with 476;
12 correct?
13 A. No, that would actually -- I'm sorry,
14 476 would be the amount of disease in the actual
15 world but it's not the amount of disease in the

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16 counter factual world.
17 Q. When you run your percentage against the
18 amount of disease in the counter factual world?
19 A. Yes, presumably that's what we did here.
20 See, 10 says 6 times 9 times 8, 9 gives you -- is
21 the Harris reduction.
22 Are you with me?
23 Q. No, I think I've -- the proportion of
24 base case disease in counter factual world --
page 235
page 236
1 A. Is 48.1 percent. That means that
2 instead of 476 lung cancers you are going to have
3 48 percent of that number. To which you apply then
4 the 37.9 percent propensity to sue to get the 86.8
5 claims.
6 Q. If you could turn to attachment 4 to
7 your report which is at the back. There's a series
8 of graphs numbered 1 through 13.
9 What do you intend to do with these?
10 A. I think these are going to become
11 demonstrative exhibits introduced at trial.
12 Q. Did you create these?
13 A. No. They were created by Deloitte &
14 Touche and we checked them a couple different ways.
15 We were not the original creators.
16 Q. Did you ask Deloitte & Touche to prepare
17 graphs addressing these subjects?
18 A. No. Let me tell you how these came
19 about.
20 I believe in the initial instance the
21 attorneys asked Deloitte & Touche to prepare a
22 series of graphs and then the attorneys brought
23 them to us thinking they might be helpful to show
24 certain issues.
page 236
page 237
1 If you don't mind, I have a frog in my
2 throat.
3 MR. STENGEL: Off the record.
4 THE VIDEOGRAPHER: The time is 2:08
5 p.m. We are going off the record.
6 (Recess taken.)
7 THE VIDEOGRAPHER: The time is 2:12
8 p.m. and we are back on the record.
9 A. I was in the middle of some
10 explanation.
11 (Record read.)
12 A. So we went over the graphs that were
13 produced which I think included a bigger set than
14 this and made some suggestions on what should be
15 done and then came back and I believe they
16 highlight some of the points that I make in the
17 report.
18 Q. You made reference to some suggestions
19 you made. Were those for some additional graphs or
20 for formatting or structure for some of the graphs
21 that already existed?
22 A. Mainly formatting and structure, maybe
23 some additional.
24 Q. You said the attorneys brought these to
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you. Were you the only testifying expert in the room when you were going through this analysis?
A. Yes.
Q. I am going to show you what we marked as Dunbar 8 which is your corrected report and I think probably the best way to do this is we will mark 8 and then I will give you what counsel had showed me which is another version of that with the changes tabbed. I think the most efficient way to do this on the record is for you to run through the tabs and identify what charges are reflected in your report.
(Dunbar Exhibit 8, corrected report, marked for identification, as of this date.)
A. Page 3, seven lines from the top, 830 should be 842. Under paragraph 4, six lines from the bottom, 728 should be 727.
Page 11, bottom line, 830 should be 842.
Page 25, second line from the top, 830 should be 842.
Page 52, footnote 120, October 10 should be October 22. Footnote 121, page 52, October 10 should be October 22.
Page 54, in the first table the third

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page 239

column, 377 should be 373, 82 should be 81, 592 should be 586, 1051 should be 1041.
Q. You may have reversed that, Dr. Dunbar.
A. 1051 should be 1041?
Q. You're right. Sorry.
A. In the fourth column, 353 should be 348. 77 should be 76. 554 should be 546. Let me say that again, 554 should be 546. 984 should be 969.
Page 60, in the second quote, seven lines from the top, report should be expert.
Page 65, in the second quote, first line, non-disabling should be disabling.
In the first table on page 75, in the fourth column, 314 should be 319. 58 should be 57. 482 should be 475. 859 should be 846. And in the fifth column, last row, 1.76 should be 176.
On page 82 in the first full paragraph, second line from the bottom, "out of over" should read "out of nearly."
On page 85, the last line, instead of 13 percent it should be 11 percent, instead of 15 percent it should be 14 percent.
On page 88 in the third column, 179 should read 176. 288 should read 283. 492 should

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page 240

read 484.
On page 94, table at the top, the third column, 60 should read 59, 42 should read 41 and on the third column of the second table, 42 should read 41.
That's all.
Q. Do you anticipate that the same attachments to Dunbar 1 will be attached to what was marked as Dunbar 8?
A. Yes.
Q. Do you anticipate doing any additional

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12 substantive analysis that would be reflected in
13 another amendment to your report?
14 A. No.
15 Q. We talked some yesterday about the
16 Manville share. Do you know what the Celotex share
17 is relative to Manville today?
18 A. No.
19 Q. You don't know anything about the
20 Celotex trust?
21 A. No.
22 MR. STENGEL: I would like to mark as
23 Dunbar Exhibit 9 --
24 (Dunbar Exhibit 9, book entitled
page 240
page 241
1 Estimating Future Claims, marked for
2 identification, as of this date.)
3 MR. STENGEL: -- a book.
4 Q. Dr. Dunbar, are you one of the
5 co-authors of this work?
6 A. Yes, I am.
7 Q. Entitled "Estimating Future Claims"?
8 A. Yes.
9 Q. When you were co-authoring this work did
10 you attempt to be accurate and complete as to the
11 information you put in the book?
12 MR. LEIBENSTEIN: Objection.
13 A. Yes.
14 Q. You didn't include anything that was
15 knowingly misleading?
16 A. Yes.
17 Q. Has anyone brought any mistakes or
18 errors in this book to your attention?
19 A. Not to my knowledge.
20 Q. And, to your knowledge, it would still
21 be reasonable for an individual to rely on what you
22 say in this book?
23 MR. LEIBENSTEIN: Objection.
24 A. Well, I can't answer that yes/no.
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page 242
1 Things march on and there may be new things that
2 have come out since this was written such that I
3 would change something from time to time. I
4 haven't taken the effort to do it. I can't tell
5 you any particular thing but I do know that things
6 I have said in the past have been affected by new
7 knowledge and new doctrine after I have said them.
8 Q. As part of your retention in this case,
9 have you examined any internal tobacco company
10 documents?
11 A. No.
12 Q. Have you undertaken any inquiry as to
13 the validity of the liability claims against the
14 tobacco companies?
15 MR. LEIBENSTEIN: Objection. Lack of
16 foundation.
17 A. No.
18 MR. STENGEL: I would like to mark as
19 Dunbar 10 a NERA report captioned, titled
20 "Estimating Future Asbestos Claims, Lessons
21 From the National Gypsum Litigation."
22 (Dunbar Exhibit 10, NERA report titled

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23 "Estimating Future Asbestos Claims, Lessons
24 From the National Gypsum Litigation," marked
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1 for identification, as of this date.)
2 MR. LEIBENSTEIN: For the record, it
3 affects several of the exhibits, there are
4 fax re: lines that appear to be consultants
5 by the trust. To the extent there is any
6 discussion about the documents and what they
7 are, I want to make clear that I hope it
8 doesn't relate to the re: lines as well.
9 MR. STENGEL: No. I would not
10 anticipate that Dr. Dunbar was testifying
11 that the NERA report was circulated in all
12 instances by another consulting
13 organization.
14 MR. LEIBENSTEIN: Actually, I was more
15 concerned about other documents. But yes.
16 I am glad you agree with me.
17 Q. Were you a co-author of Dunbar 10?
18 A. Yes, I was.
19 Q. Did you attempt to be complete and
20 accurate to the best of your abilities as a
21 co-author of Dunbar 10?
22 MR. LEIBENSTEIN: Objection.
23 A. Yes.
24 Q. Has anyone brought any mistakes or
page 243
page 244
1 errors in Dunbar 10 to your attention?
2 A. Technically the answer is no. Given
3 some of the things that have happened in the area
4 of estimation since this time, I would say I am not
5 exactly sure it would have been written the way it
6 is now.
7 Q. But the answer to the question as to
8 whether there are errors is no?
9 A. Yes, that's right.
10 MR. STENGEL: Off the record.
11 THE VIDEOGRAPHER: The time is 2:28
12 p.m. We are going off the record.
13 (Recess taken.)
14 THE VIDEOGRAPHER: The time is 2:33
15 p.m. and we are back on the record.
16 BY MR. STENGEL:
17 Q. Dr. Dunbar, I have put in front of you
18 what we marked as a composite exhibit, Dunbar 11.
19 These were documents produced to us this morning.
20 If you could just go through the package in page
21 order and tell us what each of these pages is.
22 (Dunbar Exhibit 11, composite exhibit,
23 marked for identification, as of this date.)
24 A. Sure. I think probably the best way to
page 244
page 245
1 do that is episodically.
2 Q. That's fine.
3 A. Yesterday you asked how we computed the
4 Manville share in adjusting the damages and also
5 how we computed the adjustment for punitive
6 damages. Let me just take a look here. I think I
7 responded that it was a weighted average but that

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8 the backup didn't include the weighted average. It
9 turns out that what happened was the magnetic file
10 on which these are produced never made it into
11 discovery. It was just an oversight. And so when
12 the backup was produced off of the materials that
13 were turned over, the backup didn't have access to
14 these materials which were actually used in the
15 computations. So this plugs a gap in the materials
16 turned over. You see on the first page there's the
17 computation of the percentage overpayment due to
18 Manville share which is indeed a weighted average
19 of the pre-C and post-C as I testified yesterday.
20 And more weighted averages by disease and by an
21 overall are computed on the next page.
22 The following page I should think is
23 probably on that file, that was one that we
24 probably turned over. And the following page shows
page 245
page 246
1 overpayment. The pre-C period is the next page,
2 then the post-C period.
3 Q. Whose handwriting appears on the pages?
4 A. I think these are a research associate.
5 Q. Who's that?
6 MR. LEIBENSTEIN: You want a name?
7 MR. STENGEL: Yes.
8 A. Fadim Marchuk.
9 Q. I interrupted you.
10 A. The next page is the data from the SAS
11 files that goes into the weights.
12 The next page is the derivation of the 6
13 percent number that I mentioned yesterday which is
14 the adjustment we make during the TDP period for
15 overpayments due to punitive damages and I think,
16 as I indicated to you yesterday, it shows that we
17 zeroed out post petition -- any post petition
18 overpayments due to punitive damages. So it's just
19 an average of the two.
20 And then the following page gives the
21 weights for taking that average and, again, the SAS
22 output.
23 The next page is a computer printout
24 from StatXact and gives a revision to the
page 246
page 247
1 estimates.
2 Q. The estimates of what, Doctor?
3 A. I am just looking. This is in a
4 different order than I remember it being. If I
5 could just have a second.
6 It's the estimates of the median
7 difference between -- median difference in
8 settlement values between smokers and non-smokers
9 from matched pairs that we pulled from the -- what
10 we call the Rabinovitz sample. And it's attached
11 for statistical significance showing that the
12 settlement values were indeed statistically
13 different for smokers and non-smokers. Stated
14 statistically in terms of settlement value, we can
15 accept that they are drawn from different
16 populations.
17 Q. Looking at StatXact output, this is
18 dated Wednesday, June 7. Do you know when this

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19 analysis was first performed?
20 A. This analysis was probably performed
21 yesterday morning because it reflects a correction
22 in some data that was found in discussions between
23 the researcher and the person who ran the analysis.
24 Q. And moving down, looking at the first
page 247
page 248
1 page of the StatXact 3 output, maybe the best
2 way -- they are all the same time -- about a third
3 of the way down the page there are three arrows and
4 a line that says PSHL/X, or EX rather,
5 /P1=BIDNS/P2=BIDS. Is that bilateral interstitial
6 disease non-smoking and bilateral interstitial
7 disease smoking?
8 A. That would be my presumption.
9 Q. That's your presumption, that's just how
10 you read that?
11 A. That's just how -- I didn't create these
12 pneumonics, they would have been created by the
13 person who ran the program.
14 Q. What variables -- if you look above
15 that, you have a min and max and a mean specified.
16 What numbers do those -- what data points do those
17 numbers correspond to?
18 A. This is a test or an approach to
19 estimation where differences between observations
20 are given a rank from 1 up through how many such
21 differences there are, say 50 to pick a number, and
22 so the mean is the mean of the sum of the ranks.
23 And sometimes you will see .5. That means there
24 was a tie break when the values of two differences
page 248
page 249
1 are equal. But it's not a variable -- that is a
2 true ordinal variable, that's not a cardinal value
3 associated with either a smoking related variable
4 or a shared causation variable.
5 Q. Is any of the output of this report
6 reflected in -- I'm sorry, in these printouts
7 reflected in your report?
8 A. No. I think I mentioned that I did
9 these in response to reading the deposition
10 testimony of Dr. Rabinovitz where she averred there
11 was no relationship between smoking discount and
12 settlement values. This was an attempt to test
13 that hypothesis.
14 Q. Can you tell just by looking at these
15 sheets -- are these calculations for different
16 payment plans?
17 A. These are -- as it turns out, all of
18 these data points are drawn from pre-C.
19 Q. These are all pre-C?
20 A. These are all pre-C, yes.
21 Q. Are these multiple copies of the same
22 document in some cases?
23 A. It looks like it to me. I can't explain
24 that. It looks like you had three copies of the
page 249
page 250
1 same document or more.
2 Q. More than that I think.
3 MR. LEIBENSTEIN: That saves time.

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4 Q. Why did you select the Hodges Lehmann
5 estimates in this case?
6 A. They have two of the virtues we
7 mentioned yesterday. One is you don't have to
8 assume a distribution in order to test
9 significance. Two, they are robust with respect to
10 outliers. But one virtue that they have in this
11 case is their more efficient with respect to small
12 samples. In other words, if you have small samples
13 you are able to get more precision out of your
14 hypothesis test than if you use parametric
15 techniques.
16 Q. Just so I am clear now that we have
17 cleared up the duplicate page problem, we have a
18 Hodges Lehmann estimate, a median difference or --
19 I apologize because where I am still having
20 difficulty, you have what looks like two sets of
21 numbers or BID and then at the bottom you have
22 LCNS. That I will assume refers to lung cancer?
23 A. Yes.
24 Q. Can you enlighten me as to what the
page 250
page 251
1 difference is between the first set of numbers than
2 the second other than obviously the second set is
3 different? You have the first -- starting at the
4 top of the page after the date and time you have
5 the three arrows PSHL/E and then as we discussed
6 you have /P1=BIDNS/P2=BIDS and below that you have
7 a reference to a Hodges Lehmann estimate and then
8 you specify or have an output in the form of min,
9 max, mean, standard deviation, etcetera. If you go
10 down -- then an elapsed time and fraction of
11 seconds is given for that data. The section of
12 three arrows gives you what looks like the same
13 code identifiers of PSHL/EX/=BIDNS/P2=BIDS and
14 another set of Hodges Lehmann estimates with a
15 different max, mean, standard deviation observed
16 and standardized.
17 A. Right.
18 Q. I was wondering why the lines of code, I
19 am not using that in a technical sense, but the
20 descriptors seem to be the same, why you are
21 getting different Hodges Lehmann estimates?
22 A. It would be my presumption that the
23 differences come from just differences in the
24 database that in terms of finding matched samples,
page 251
page 252
1 though you try to be as objective as possible in
2 doing it, basically what we did was a computer
3 matching, we wrote a computer algorithm to pull out
4 smokers who are matched to non-smokers, that every
5 once in a while there might be an ambiguity as to
6 whether there's an actual match so you make two
7 different estimates and that's why I think you have
8 two BID estimates here and one lung cancer
9 estimate. This one lung cancer estimate was
10 probably made on a different -- slightly different
11 database than the lung cancer estimate we gave you
12 yesterday.
13 Q. Again, does the max refer to the number
14 of pairs specified?

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15 A. All max and min refers to is the rank
16 order numbers.
17 Q. So it's coincidental that the max and
18 the mean of the first BID and the lung cancer is
19 identical?
20 A. That would be my take. That is
21 interesting. I see the medians are different.
22 Q. You note that your second BID is much
23 faster?
24 A. What, eight seconds versus six seconds?
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page 253
1 Q. Just kidding.
2 That's all for that.
3 We don't need to mark this. I was
4 provided with a disk, I presume that disk
5 corresponds with what we just discussed as the
6 composite exhibit to the extent it wasn't already
7 material we had?
8 A. It has a few more things on it. Yes, it
9 has the materials -- it has those backup materials,
10 the file that wasn't turned plus the associated SAS
11 data files, programs that go into that. We also
12 turned over yesterday an exhibit on confidence
13 intervals. That was done using a Gauss program and
14 the Gauss code for that is in that disk.
15 MR. STENGEL: Let's mark that as the
16 next, 12.
17 (Dunbar Exhibit 12, mathematical
18 notes, marked for identification, as of this
19 date.)
20 Q. Have you had a chance to examine Dunbar
21 12?
22 A. Yes.
23 Q. Can you tell us what it is?
24 A. Around the time that we got the three
page 253
page 254
1 reports from Drs. Nicholson, Florence and
2 Rabinovitz I tried to go over the Nicholson report
3 and to work out for myself some of the assertions
4 that he was making about relative risk and of
5 portioning on the basis of relevant risk and in the
6 course of doing that and also thinking about the
7 issues again when Dr. Harris' model came out, I
8 sort of took pen to paper and made some
9 mathematical notes. Now it has been a long time
10 since I have seen this and it will take me awhile
11 to try to recover what's going on here but I wanted
12 to save them because I am just intellectually
13 interested in the subject and I was thinking I
14 might try to get an article out of it later on.
15 Q. Just so I understand the circumstances
16 of the creation, part of this was done in response
17 to Nicholson, Rabinovitz and you did some more when
18 you saw Harris or all this was done in your first
19 pass of Nicholson --
20 A. All of this was done in the first pass.
21 I think I mentioned yesterday, I am missing some
22 notes, I just don't know where they are and I did
23 some more after we got the Harris report but I just
24 haven't been able to find them.
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1 Q. But this all relates to
2 Nicholson/Rabinovitz, it doesn't address --
3 A. Harris.
4 Q. And all of this is your handwriting?
5 A. Yes.
6 Q. I would like to show you what we will
7 mark as 13.
8 (Dunbar Exhibit 13, computation of
9 historic averages, marked for
10 identification, as of this date.)
11 A. This is a computation of historic
12 averages. It compares them to the -- what would
13 have been expected at the time the TDP matrix was
14 developed and also too what the actual experience
15 has been under the TDP.
16 Q. And the difference between expected TDP
17 and TDP relates to the relative mix of claims?
18 A. That the trust was expecting, yes.
19 Q. And this was, I believe yesterday you
20 discussed having created an average in response to
21 your reading of Dr. Rabinovitz's deposition?
22 A. Well, we had actually had averages
23 floating around before on some of the SAS printout
24 and I satisfied myself at that time that they were
page 255
page 256
1 in line with the TDP results. But we didn't
2 keep -- that would have been on SAS printout that
3 was ancillary to other things that we were doing
4 and we didn't keep those. So when I read
5 Dr. Rabinovitz' report I tried to recover those
6 estimates.
7 Q. So whatever prior versions existed you
8 hadn't retained so this is the only version of this
9 you have now?
10 A. Yes.
11 MR. STENGEL: I would like to mark as 14
12 that document.
13 (Dunbar Exhibit 14, two documents,
14 marked for identification, as of this date.)
15 A. You want me to explain this?
16 Q. Yes, please.
17 A. There's two different documents here.
18 The first one which is four pages long goes through
19 and counts the number of pre-TDP cancer claims in
20 the Rabinovitz sample that did not meet the 15-year
21 exposure requirement.
22 Q. The second document?
23 A. The second document is another
24 nonparametric analysis that shows that the doctors
page 256
page 257
1 that had the worse audit experience were the ones
2 that were also getting the most claimants.
3 Q. This nonparametric analysis is the
4 Jonckheere-Terpstra test. Can you tell us when
5 these two documents were generated?
6 A. The first one was two weeks ago. Right
7 around the time of the report. The second one was
8 late last week. Friday.
9 Q. What caused you to prepare the second
10 one?

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11 A. It was just something I noticed in the
12 patterns and I was kind of curious as to whether it
13 was statistically significant.
14 MR. STENGEL: We will mark as Dunbar 15
15 a collection of handwritten notes.
16 (Dunbar Exhibit 15, handwritten notes,
17 marked for identification, as of this date.)
18 Q. Is this your handwriting?
19 A. This is my handwriting, yes.
20 Q. Do you recall approximately when you
21 created this document?
22 A. November, December.
23 Q. Do you know why you handwrote this
24 document as opposed to inputting the text directly
page 257
page 258
1 into the computer?
2 A. Because this was going to go into a
3 different file. Again, I wanted to keep notes on
4 this document for the purpose of perhaps writing an
5 article.
6 Q. This is on your shared causation issues?
7 A. Yes.
8 MR. STENGEL: Dunbar 16.
9 (Dunbar Exhibit 16, computation of
10 confidence intervals, marked for
11 identification, as of this date.)
12 A. This is the computation of confidence
13 intervals for, in the first instance, the damages,
14 and in the second instance, several of the
15 parameters and the way we did that was with Monte
16 Carlo analysis and I gather that what's attached is
17 a program that does that. That program is on the
18 disk we gave you.
19 Q. This is the Gauss program you referred
20 to?
21 A. Yes, that's correct.
22 Q. And David McKnight is a programmer
23 working for NERA?
24 A. Yes.
page 258
page 259
1 Q. This printout is dated 6/5. I notice
2 the program appears to be dated May 25. Was May 25
3 the date of creation for this program?
4 A. He's been working on it over time. I
5 think May 25 just means when he started or
6 around -- not necessarily when he started but
7 definitely not when it was finished.
8 Q. It was finished subsequent to that?
9 A. Yes.
10 Q. Just so I understand what this
11 represents, is you have done a Monte Carlo
12 simulation which means you run random inputs
13 through whatever models you have; correct?
14 A. Random draws, yes. Random draws
15 pursuant to a particular, usually empirical
16 distribution.
17 Q. You, for example -- I guess, Doctor,
18 part of my confusion is if you look at the damages
19 box there are negative numbers and positive
20 numbers. Are they negative because these are your
21 views of necessary subtractions? Why are the

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22 numbers negative?
23 A. Okay. This is the -- actually, why
24 don't we go to the report. We went over this
page 259
page 260
1 yesterday. But if you look -- I will look at the
2 corrected one.
3 Q. That would be Dunbar 8. You went back
4 to 1.
5 A. You will see in here that there's
6 some --
7 MR. LEIBENSTEIN: What page are you
8 referring to?
9 A. Take a look at 94. These are the
10 damages we've computed giving effect to all the
11 changes we made up to this point in the report.
12 And there are -- there's a number that is negative
13 is going to be an offset to any positive number,
14 but when we create a total column that total column
15 is either a positive number or a zero. It's not a
16 negative number when we say damages -- well,
17 mathematically, though, what happens in the
18 computer is that if the negative numbers outweigh
19 the positive numbers then the computer is going to
20 add them up and come up with a total that's a
21 negative number. I as a human will take that
22 negative number and change it as a zero but the
23 computer is going to keep it as a negative number
24 in the Gauss program. So that explains why you are
page 260
page 261
1 ending up with negative numbers here. But in terms
2 of damages, a negative number, that's a total is
3 going to be a zero damage.
4 Q. This would suggest that on your high end
5 the RICO total is a million 8?
6 A. I think that's the 95 percent. Yes.
7 The upper -- that's the upper bound of a 95 percent
8 confidence interval.
9 Q. The smoking discounts, how are those
10 expressed? Is that the reciprocal of a percentage?
11 What does 1.179 mean?
12 A. If you look at this formula here, we
13 have in this parenthesis.
14 Q. What tab are you looking at?
15 A. It's after page 4. You're right, the
16 same formula appears a number of times.
17 Q. Okay, got it.
18 A. So you see that what happens in
19 parenthesis is a fraction and in the denominator is
20 one minus the smoking discount in the actual world,
21 the numerator is one minus the smoking discount in
22 the counter factual world. So let's say 1 minus
23 the smoking discount, to make the math easier, in
24 the actual world is .75, then 1 minus the smoking
page 261
page 262
1 discount in the counter factual world might be
2 something like .9. So that .9 divided by .75 gives
3 you the number.
4 Q. While you have the book open to that
5 page, did you specify this equation?
6 A. Yes.

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7 Q. Did you consult with anyone else about
8 that specification?
9 A. I worked it out with Paul and I had him
10 check it out. We spent time going over it.
11 Q. Is he a research associate?
12 A. No. Paul is a senior consultant.
13 MR. STENGEL: With that, pending further
14 production, amendments, etcetera, we are
15 completed.
16 MR. LEIBENSTEIN: I have one question.
17 Just a follow-up issue that might have
18 become confused which is:
19 EXAMINATION BY
20 MR. LEIBENSTEIN:
21 Q. How did you calculate the Manville share
22 that was actually applied during the pre-C and
23 post-C periods?
24 A. During the pre-C period we used the
page 262
page 263
1 group settlement files and we divided the Manville
2 settlement, the actual Manville settlement by the
3 total of other settlements or if we -- we could
4 have used ACF settlements, there's two
5 calculations, one is based on total settlements and
6 the other is relative to ACF settlements.
7 In the post-C period, Manville shares
8 computed off of the CAS forms using the
9 non-Manville discount and the recommended
10 settlement.
11 MR. LEIBENSTEIN: I have no further
12 questions.
13 (Continued on the following page.)
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1 MR. STENGEL: Thank you, Doctor.
2 THE VIDEOGRAPHER: The time is 3:12 on
3 June 7, 2000. This completes the videotaped
4 deposition of Mr. Frederick C. Dunbar, Ph.D.
5 and this completes tape number 5.
6 (Time noted: 3:12 p.m.)
7
8 _____
9 FREDERICK C. DUNBAR, Ph.D.
10
11 Subscribed and sworn to before me
12 this ____ day of _____, 2000.
13
14 _____
15
16
17

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23
24
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1 C E R T I F I C A T E
2 STATE OF NEW YORK)
3 : ss.
4 COUNTY OF NEW YORK)
5
6 I, ANDREA L. KINGSLEY, a Notary
7 Public within and for the State of New
8 York, do hereby certify:
9 That FREDERICK C. DUNBAR, Ph.D., the
10 witness whose deposition is hereinbefore set
11 forth, was duly sworn by me and that such
12 deposition is a true record of the testimony
13 given by the witness.
14 I further certify that I am not
15 related to any of the parties to this
16 action by blood or marriage, and that I am
17 in no way interested in the outcome of this
18 matter.
19 IN WITNESS WHEREOF, I have hereunto
20 set my hand this 8th day of June, 2000.
21
22 _____
23 ANDREA L. KINGSLEY
24
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